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**CORDLESS COMMUNICATION SYSTEM COMPATIBLE WITH A PUBLIC
MOBILE COMMUNICATION SYSTEM**

Field of the Invention

5 The invention refers to a cordless communication system that is compatible with a public mobile communication system and a method of operating the cordless communication system according to the preambles of the independent claims.

Background of the Invention

10 In today's mobile communication systems, a clear distinction exists between public mobile wireless systems, such as the GSM System and private cordless communication systems that operate according to, e.g., the in DECT standard [Digital European Cordless Telecommunication]. This has led to different system devices that can be used either for mobile wireless operation or for cordless operation.

15 Attempts have been made before to design terminals, in particular, mobile terminals, that can be used in two different mobile communication systems. However, due to the incompatibility of the different standards, relatively user-unfriendly and expensive solutions have resulted.

20 Another point of departure lies in arranging the base station of a cordless communication system in such a way as to make it compatible with a public mobile communication system, i.e., so that it can communicate with conventional mobile terminals. However, there is a lack of suitable suggestions for solving the problem of compliance with the required security functions. Here, the problem is that the base station of the cordless communication system is connected to a wire-bound fixed network, which makes it impossible to influence the base station via the mobile communication system.

Summary of the Invention

25 WO-A-95/24106 relates to a secured personal communication system based on a base station connected to the public network. The base station allows operation of mobile terminals of a mobile communication system. A conventional authentication method of the mobile communication system provides for the security of the communication, wherein the base station is connected to the security installations of the
30 mobile communication system through the public fixed network, and exchanges security information with the security features to allow registration of the mobile